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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,368	12/10/2004	Peter Bassler	262562US0PCT	3963

22850 7590 11/13/2008  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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11/13/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/517,368	<b>Applicant(s)</b> BASSLER ET AL.	
	<b>Examiner</b> Virginia Manoharan	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17/30/08.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11, 13-21, 23, 24, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20, 21, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 11, 13-19 and 27-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The disclosure is objected to because the BRIEF DESCRIPTION OF THE DRAWINGS does not include a reference to Fig. 4.

Claims 27-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). In claim 27, the dependency in claim 17 should be claim 16 since the preparation of crude oxirane is mentioned in claim 16?

b).The first "wherein" clause in claim 27 is already covered in claim 17, claimed twiced? Likewise, the second "wherein" clause in claim 27 is already in claim 11, the claim from which it ultimately depends?

c).The adiabatic reactor in claim 27 appears to be broadening the initially recited "adiabatic fixed-bed reactor" in claim 17.

Claims 11,13-19 and 27-28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 7,332,634 for the same reason as set forth at the first full paragraph, page 4 of the previous Office action.

Claims 11,13-19 and 27-28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,479,680 in view of Rust et al (6,958,111 ) for the same reason as set forth at page 4, third full paragraph.

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Claims 11,13-19 and 27-28 are rejected on the ground of nonstatutory double patenting over claims 1-17 and claims 1-15 of U.S. Patent No. 7,332,634 and U. S. Patent No. 6,479,680 respectively since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent. The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter as set forth at the last paragraph, page 4 of the previous Office action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11,13-19 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Disclosure of Admitted Prior art as illustrated e.g., by WO00/07965 in view of Rust et al (6,958,111 ).

The above references are applied for the same combined reasons as set forth at the paragraph bridging pages 5 and 6 of the previous Office Action.

Claims 20-21 and 23-24 are allowed.

Applicants' arguments filed September 18, 2008 have been fully considered but they are not persuasive.

Applicants' argument that "...Page 17 of the present specification, referred to by the Office at page 4 of the Official Action, describes, at lines 4-5, that the high

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boiling components contain propylene glycol. Thus, for purifying 1,2-propylene glycol in the process of, for example, present Claims 11 and 20, and the claims depending therefrom, the 1,2-propylene glycol would be taken off as a high boiling fraction; whereas for purifying 1,2-propylene glycol in the processes of Claims 1 and 12 of '634, the 1,2-propylene glycol would be taken off as the intermediate fraction (e.g., intermediate boiler)..” is not persuasive of patentability. The essence of the rejection is that the specific propylene glycol of the above patent is the key component of the instant oxirane; and since no process can purify 100%, the purified oxirane would necessarily contain the propylene glycol, and further since the claims are directed to similar process/method steps, it is deemed obvious to an artisan to substitute one over the other, i.e., to substitute oxirane for propylene glycol and vice versa, so as to arrive to the claimed invention. Applicants further argument that “..neither '965 or Rust, alone or in combination, describe or suggest, for example, the feature of present Claims 11 and 20, and the claims depending therefrom, wherein the dividing wall column is configured as thermally coupled columns”. is not considered well- taken. However, Rust’s disclosure at col. 1, lines 30-43 and lines 51-56 would at least be suggestive of the argued “dividing wall column is configured as thermally coupled columns”. As disclosed,

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component mixtures. A dividing wall column is in principle a simplification of a system of thermally coupled distillation columns. In dividing wall columns, a dividing wall is located in the middle region. This extends to above and to below the feed point. On the other side, located opposite the feed point, at least one side offtake is located at the same height as, above or below the feed point. The dividing wall is located between the side offtake and the feed point. This dividing wall is generally vertical. In the region of the column which is divided by the dividing wall, lateral mixing of liquid and vapor streams is not possible. As a result, the total number of distillation columns required for fractionating multicomponent mixtures is reduced. A dividing wall

Compared to the arrangement of conventional distillation columns, dividing wall columns and thermally coupled columns offer advantages in respect of both energy consumption and capital costs and are therefore preferably used in industry. Thermally coupled distillation columns or divid-

Moreover, the claims are not limited to the argued "thermally coupled columns can be operated at different pressures which allows for improved adjustment of the temperature levels used for distillation" commensurate with the argument. Furthermore, the superior result of energy saving alluded to by applicants at Table at page 12 of the originally specification is expected, not unexpected as described supra.

Absolute predictability is not a prerequisite for obviousness rejection. All that is required to show obviousness is that the applicant make his claimed invention merely by applying, knowledge clearly present in the prior art. Section 103 requires us to presume full knowledge by the inventor of the prior art in the filed of his endeavor. See *In re Winslow*, 53 CCPA 1574, 1578, 365 F.2d 1017, 1020, 151 USPQ 48, 50-51 (1966). No commercial success is claimed, nor is any other factor indicating No commercial success is claimed, nor is any other factor indicating non-obviousness is seen to exist.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

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PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Virginia Manoharan/  
Primary Examiner, Art Unit 1797